ABSTRACT OF THE DISCLOSURE

A method and apparatus for layer 3 switching packets between locally attached virtual local area networks without using a routing protocol are provided. A learning internetwork switch is connected between a router and a plurality of virtual local area

5 networks. Communications between devices on the virtual local area networks and the router pass through the learning internetwork switch. By inspecting certain packets that flow between the devices and the router, the learning internetwork switch learns the location of the devices without having to use a routing protocol. The learning internetwork switch learns the network layer and the data link layer addresses

10 of the various devices. Once the learning internetwork switch has learned the location, the network layer address and data link layer address of a device, the learning internetwork switch can forward packets between devices on different virtual local area networks using layer 3 switching without involving the router.

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